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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,181	12/02/2003	Richard Thomas Plunkett	PEA01	6713
24011 7590 11/20/2007 SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, 2041 AUSTRALIA			EXAMINER KAU, STEVEN Y	
			ART UNIT 2625	PAPER NUMBER
			MAIL DATE 11/20/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/727,181

Applicant(s)

PLUNKETT ET AL.

Examiner

Steven Kau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. This action is responsive to the following communication: an Amendment filed on September 14, 2007.

- Claims 1 to 5 have been amended.
- Claims 1-5 are currently pending.
- Applicant's arguments filed on September 14, 2007 have been fully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by o(US 5,166,809).

Regarding Claim 1.

Surbrook discloses A method for sequentially outputting (e.g. sequentially obtain a set of dither space coordinates, col 42, lines 3-11) full lines (e.g. a 8x8 dither matrix, full line of reading is 1 to 8, col 21, lines 33-42) of dither values of a dither matrix stored in a memory (Figs. 1, 2 & 4, col 4, lines 40-60), comprising the step of: (a) reading a

plurality of dither values of the dither matrix from the memory (Surbrook discloses that the digital processing system simply accesses the threshold values stored at $r.sub.i$, $r.sub.j$ and compares the threshold value stored at that position of dither matrix with the intensity value at the continuous tone address, col 17, lines 20-29) commencing at an initial start position in the memory until a full line of dither values of the dither matrix has been read (col 17, lines 20-29); (b) outputting the full line of dither values read in step (a) (col 42, lines 3-11 and col 21, lines 33-42); (c) updating the initial start position to an updated start position in the memory of a subsequent line of dither values (col 21, lines 33-42); (d) reading a plurality of dither values from the memory (col 17, lines 20-29), commencing at the updated start position until the full subsequent line of dither values has been read (col 21, lines 33-42); (e) outputting the full line of dither values read in step (d) (col 17, lines 20-29); and (f) repeating steps (c)-(e) until all lines of dither values of the dither matrix have been read and output (Surbrook discloses a entire dithering continuous tone processing by obtaining dither element value, comparing continuous tone signal with dither element value sequentially described col 21, lines 33-42. The dithering process repeats steps (c) to (e) for the entire continuous tone dithering process, col 16, lines 14-40).

Regarding Claim 4.

Surbrook discloses wherein in repeated step (c), it is determined whether dither values at an end position in the memory have been read, and if so, the updated start position is updated to the initial start position (Surbrook discloses a dithering values are stored in memory and dither matrix values are repeat applied, this implies that memory

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positioning must be updated as long as dithering process is on going; col 17, lines 20-29 and col 23, lines 33-42).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Surbrook (US 5,166,809) in view of Matsuba et al (Matsuba) (US 5,815,286).

Regarding Claim 2.

Surbrook differs from claim 2, in that he does not teach reading a plurality of dither values from at least two of the dither matrices simultaneously.

Matsuba discloses reading a plurality of dither values from at least two of the dither matrices simultaneously (Matsuba discloses four threshold matrix memories 101 through 104, which store four threshold matrices. Four threshold data TD1 through TD4 are simultaneously read out from respective threshold memories, col 35, lines 25-39).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Surbrook to include reading a plurality of dither values from at least two of the dither matrices simultaneously taught by Matsuba and

therefore, four color components can be processed with respect to four threshold matrices value at the same time (Figs 21A-D, col 20, lines 21-32).

Regarding Claim 3.

Surbrook differs from claim 3, in that he does not teach wherein the dither matrices are of different sizes.

Matsuba discloses wherein the dither matrices are of different sizes (Figs. 1a-c).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Surbrook to include that dither matrices are of different sizes taught by Matsuba and therefore, four color components can be processed with respect to four threshold matrices value at the same time (Figs 21A-D, col 20, lines 21-32).

Regarding Claim 5.

Surbrook discloses wherein in repeated step (c) it is determined whether dither values at an end position in the memory have been read for each of the dither matrices, and if so, the updated start position is updated to the initial start position (Surbrook discloses a dithering values are stored in memory and dither matrix values are repeat applied, this implies that memory positioning must be updated as long as dithering process is on going; col 17, lines 20-29 and col 23, lines 33-42).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Kau whose telephone number is 571-270-1120 and fax number is 571-270-2120. The examiner can normally be reached on Monday to Friday, from 8:30 am -5:30 pm.

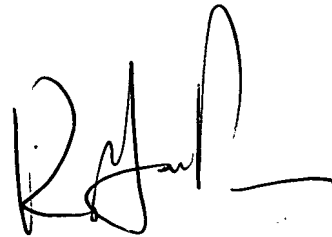
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Kau
Patent Examiner
Division: 2625
November 14, 2007



KING Y. POON
SUPERVISORY PATENT EXAMINER